

Appln No.: 09/834,796
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Applicant(s): CHANPAGNE, JEAN-PHILIPPE
Examiner: SARGON N. NANO
Group Art Unit: 2157

Remarks

This communication is responsive to the Final Office Action of September 24, 2008 and the Advisory Action of December 9, 2008. Reexamination and reconsideration of the claims is respectfully requested.

Summary of the Office Action

Claim 6 recites the limitation "acknowledgement". There is purportedly insufficient antecedent basis for this limitation in the claim.

Claims 1-4, 6-20, 22-30, and 32-36 were rejected under 35 USC §102(e) as being purportedly anticipated by Swildens et al. U.S. Patent No. 6,754,706 (Swildens).

Claim 5 and 21 were rejected under 35 USC §103(a) as being purportedly unpatentable over Swildens and further in view of Hingorani et al. U.S. Patent 6,708,215 (Hingorani).

Response

35 U.S.C. §112

Claim 6 recites the limitation “acknowledgement”. There is purportedly insufficient antecedent basis for this limitation in the claim.

Claim 1 recites “determining if the network device receives an acknowledgement of receipt of the second data distribution message.” Claim 1 has no other references to a limitation reading “an acknowledgement”. Claim 6 recites “in the step determining if the network device receives an acknowledgement of receipt of the second distribution message.” This portion of claim 6 references the portion of claim 1 reproduced above. Claim 6 further recites “if... the network device determines that it did not receive the acknowledgement.” There is no ambiguity as to what “the acknowledgement” refers to as there is only a single limitation reading “an acknowledgement” in claims 1 and 6. Therefore, there is no antecedent basis issue. Applicant respectfully requests that the rejection be withdrawn or at least clarified so that the Application can be advanced on its merits.

The Claims Patentably Distinguish Over the References of Record

The Advisory Action of December 9, 2008 recites "Swildens discloses acknowledgment of receipt of second data and establishing a path by sending a ping packet from DNS server to a client DNS server and use the router that is closest to the client DNS. Moreover Swildens discloses in another aspect of the invention is to allow the DNS server that a request is forwarded to , to respond directly to the client [sic]." The Advisory Action points to column 7 line 39 to column 8 line 33 as disclosing the second example. Neither of these two described actions is related to "receiving acknowledgement of the second data distribution message." The first action, "establishing a path by sending a ping packet from the DNS server to a client DNS server and use the router that is closest to the client DNS" does not disclose a data distribution message. A ping packet is not a data distribution message. A ping packet is a tool used to determine the latency between two parties in a network. The second action, "allow the DNS server that a request is forwarded to, to respond directly to the client," is even less related to "receiving acknowledgement of the second data distribution message." Firstly, this embodiment removes the middle DNS server, (e.g., the client DNS server) from the system. So, even if the client DNS server were acknowledging data distribution messages, which it is not, this example removes the client DNS server. Further, this example is explicitly taught away from by Swildens as Swildens states that "this modification requires forging IP addresses." Many network devices, which a DNS server is not, take many measures to prevent the forging of IP addresses in packets. Therefore, for at least this reason, the Advisory Action fails to rebut the argument reproduced below in regards to the claims.

The Advisory Action further recites "it is not clear to the examiner why the DNS server is not a network device. The DNS servers that are disclosed by Swildens are used in a network as an authoritative server that host data and

resolves the DNS queries and cache the query responses [sic].” The Advisory Action points to column 22 lines 31-67. As previously stated, and reproduced below, a DNS server is an application that runs on a network device. The DNS server is not a network device itself. The DNS server does not perform data forwarding, multicasting, and so on as a router, switch, and so on do. While a router may run a DNS application, the DNS application has access to different resources than the part of the router that handles network layer communications. Multicasting, a technology to which the application is closely related, is transparent to DNS servers because multicasting operates below the layers with which a DNS server interacts. This is in part because multicast packets already include information provided by a DNS application from a prior request at some step in a communication stream. For at least these additional reasons, the Advisory Action fails to rebut the arguments presented in response to the Final Office Action received on September 24, 2008. Applicant has reproduced these arguments below. Applicant respectfully requests that the rejections be withdrawn and earnestly solicits an early allowance of all claimed materials.

35 U.S.C. §102

For a 35 U.S.C. §102 reference to anticipate a claim, the reference must teach each and every element of the claim. Section 2131 of the MPEP recites:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claims 1-4, 6-20, 22-30, 32-36 were rejected under 35 USC §102(e) as being purportedly anticipated by Swildens.

Independent Claim 1

Claim 1 recites actions taken in a network device. The reference concerns a domain name system server. A DNS server is not a network device.

Evidence of this difference between Swildens and the Application is found in the portion of Swildens that the Final Office Action claims discloses "determining if the network device receives an acknowledgement of receipt of the second data distribution message." The Final Office Action claims that Swildens teaches this limitation at col. 6 lines 22-37. However, careful examination of this portion of Swildens reveals that this section discusses using latency probes to determine latency between two DNS servers. No reference is made in this portion, or anywhere else in Swildens, to receiving an acknowledgement message in response to a data distribution message in a network device. This is in part because Swildens relates to a DNS server. A DNS server operates on the application layer of the open systems interconnection (OSI) model. Application layer processes can only communicate if network layer operations (e.g., multicasting, acknowledgements, streams, and so on) are already working. The Application describes operations performed on network devices that include "routers, switches, and the like" (page 19, line 4). These types of network devices perform network layer operations on the network layer of the OSI model, and are therefore not concerned with the application layer contents of messages between two application layer logics.

The Final Office Action recites, on page 3, that Swildens discloses a network device at "col. 1 - col. 12 and fig. 1 – fig. 6". However careful review of Swildens reveals no discussion of a network device as claimed and described. The Application, on page 19, line 4 describes network devices as "routers, switches, and the like". Swildens concerns a domain name system. More particularly, Swildens describes a DNS server application that distributes

requests to a set of servers mapped to the same domain name based on the current load on the servers. A DNS server is an application layer process under the OSI model. More plainly, a domain name server is an application running on a computer much in the same way that a web server is an application running on a computer. Thus, a DNS server provides information (e.g., an address) in response to requests (e.g., a request for an address of a website based on the URL of the website).

The claim, on the other hand, recites a method for establishing a path for a stream across a network device. More particularly, the Application discloses a system for establishing a communication path between two network devices (an upstream device and a downstream device) to allow a stream of data to pass between the two devices. Network devices including routers and switches implement this type of function on the network layer of the OSI model. Therefore, "determining if the network device receives an acknowledgement of receipt of the second data distribution message" as claimed and described cannot be anticipated by Swildens. A computer running the system disclosed by Swildens will receive a packet containing data information that allows the application layer system to determine latency and load information. This is not the same as a network acknowledgement between two network devices that provides notice of a successful transmission between the two devices.

Therefore, Swildens fails to anticipate claim 1 because it teaches neither a "network device" nor "determining if the network device receives an acknowledgement". For at least these reasons, the Final Office Action Fails to set forth a prima facie case for anticipation with regards to claim 1. Applicant respectfully requests that the rejection be withdrawn, and the claim allowed. Further, as claims 2-4, 6-13, 33, and 35 depend from claim 1, a prima facie case for anticipation has also not been established for these claims. Applicant further

requests that the rejections of these claims be withdrawn, and the claims allowed.

Independent Claim 14

Claim 14 recites actions taken in a network device. The reference concerns a domain name system server. A DNS server is not a network device.

Evidence of this difference between Swildens and the Application is found in the portion of Swildens that the Final Office Action claims discloses "receiving a payload distribution message containing a data distribution header which includes a stream identifier identifying a stream of data." The Final Office Action claims that Swildens teaches this limitation at col. 2, lines 43-51. However, careful examination of this portion of Swildens reveals that this section does not describe "receiving a payload distribution message containing a data distribution header". This portion of Swildens discloses responding to a DNS request by consulting a table to see if an appropriate response to the request exists at this DNS server, or, if it does not, forwarding the request to an appropriate DNS server. A DNS server does not deal with payload distribution messages or data distribution headers as a DNS server does not pass data along a network. A DNS server can be either a starting point or an endpoint of a packet of data. Application layer logics do not directly facilitate network transmissions through devices. Payload distribution messages and data distribution headers are described on page 33 lines 5-21 and are concerned with the distribution of stream data throughout a network. As described above, a DNS server operates on the application layer of the open systems interconnection (OSI) model. Application layer processes can only communicate if network layer operations (e.g., multicasting, acknowledgements, streams, and so on) are already working. The Application describes operations performed on network devices that include "routers, switches, and the like" (page 19, line 4). These types of network

devices perform network layer operations on the network layer of the OSI model, and are therefore not concerned with the application layer contents of messages between two application layer logics. However, network devices do handle forwarding network traffic (e.g., payload distribution messages) to other devices.

The Final Office Action recites, on page 3, that Swildens discloses a network device at “col. 1 - col. 12 and fig. 1 – fig. 6”. However careful review of Swildens reveals no discussion of a network device as claimed and described. The Application, on page 19, line 4 describes network devices as “routers, switches, and the like”. Swildens concerns a domain name system. More particularly, Swildens describes a DNS server application that distributes requests to a set of servers mapped to the same domain name based on the current load on the servers. A DNS server is an application layer process under the OSI model. More plainly, a domain name server is an application running on a computer much in the same way that a web server is an application running on a computer. Thus, a DNS server provides information (e.g., an address) in response to requests (e.g., a request for an address of a website based on the URL of the website).

The claim, on the other hand, recites a method for propagating payload data through a network device. More particularly, the Application discloses a system for passing data from an upstream device to one or more downstream devices allowing a stream of data to, for example, pass from the upstream device to the downstream device(s) through the network device a single time. Network devices including routers and switches implement this type of function on the network layer of the OSI model. Therefore, “receiving a payload distribution message containing a data distribution header” as claimed and described cannot be anticipated by Swildens. A computer running the system disclosed by Swildens will receive a packet containing data information that allows the application layer system to determine latency and load information. This is not

the same as a payload distribution message that instructs a network device to pass data along one or more streams of data.

Therefore, Swildens fails to anticipate claim 14 because it teaches neither a "network device" nor "determining if the network device receives an acknowledgement". For at least these reasons, the Final Office Action Fails to set forth a prima facie case for anticipation with regards to claim 14. Applicant respectfully requests that the rejection be withdrawn, and the claim allowed. Further, as claims 15-6 depend from claim 14, a prima facie case for anticipation has also not been established for these claims. Applicant further requests that the rejections of these claims be withdrawn, and the claims allowed.

Independent Claim 17

Claim 17 recites actions taken in a network device. The reference concerns a domain name system server. A DNS server is not a network device.

Evidence of this difference between Swildens and the Application is found in the portion of Swildens that the Final Office Action claims discloses "determining if the network device receives an acknowledgement of receipt of the second data distribution message." The Final Office Action claims that Swildens teaches this limitation at col. 6 lines 22-37. However, careful examination of this portion of Swildens reveals that this section discusses using latency probes to determine latency between two DNS servers. No reference is made in this portion, or anywhere else in Swildens, to receiving an acknowledgement message in response to a data distribution message in a network device. This is in part because Swildens relates to a DNS server. A DNS server operates on the application layer of the open systems interconnection (OSI) model. Application layer processes can only communicate if network layer operations (e.g., multicasting, acknowledgements, streams, and so on) are already working. The Application describes operations performed on network devices that include

"routers, switches, and the like" (page 19, line 4). These types of network devices perform network layer operations on the network layer of the OSI model, and are therefore not concerned with the application layer contents of messages between two application layer logics.

The Final Office Action recites, on page 3, that Swildens discloses a network device at "col. 1 - col. 12 and fig. 1 – fig. 6". However careful review of Swildens reveals no discussion of a network device as claimed and described. The Application, on page 19, line 4 describes network devices as "routers, switches, and the like". Swildens concerns a domain name system. More particularly, Swildens describes a DNS server application that distributes requests to a set of servers mapped to the same domain name based on the current load on the servers. A DNS server is an application layer process under the OSI model. More plainly, a domain name server is an application running on a computer much in the same way that a web server is an application running on a computer. Thus, a DNS server provides information (e.g., an address) in response to requests (e.g., a request for an address of a website based on the URL of the website).

The claim, on the other hand, recites a method for establishing a path for a stream across a network device. More particularly, the Application discloses a system for establishing a communication path between two network devices (an upstream device and a downstream device) to allow a stream of data to pass between the two devices. Network devices including routers and switches implement this type of function on the network layer of the OSI model. Therefore, "determining if the network device receives an acknowledgement of receipt of the second data distribution message" as claimed and described cannot be anticipated by Swildens. A computer running the system disclosed by Swildens will receive a packet containing data information that allows the application layer system to determine latency and load information. This is not

the same as a network acknowledgement between two network devices that provides notice of a successful transmission between the two devices.

Therefore, Swildens fails to anticipate claim 17 because it teaches neither a "network device" nor "determining if the network device receives an acknowledgement". For at least these reasons, the Final Office Action Fails to set forth a prima facie case for anticipation with regards to claim 17. Applicant respectfully requests that the rejection be withdrawn, and the claim allowed. Further, as claims 18-28, 32, 34, and 36 depend from claim 17, a prima facie case for anticipation has also not been established for these claims. Applicant further requests that the rejections of these claims be withdrawn, and the claims allowed.

Independent Claim 29

Claim 29 recites all the elements and limitations of claim 1 in addition to being contained on a computer-readable medium. Therefore, all arguments that apply to claim 1 also apply to claim 29. Applicant respectfully requests that the rejection of claim 29 be withdrawn and the claim allowed.

Independent Claim 30

Claim 30 recites all the elements and limitations of claim 17. However, means plus function language is used to describe the logical elements. Therefore, all arguments that apply to claim 17 also apply to claim 30. Applicant respectfully requests that the rejection of claim 30 be withdrawn and the claim allowed.

35 U.S.C. §103

To establish a prima facie case of 35 U.S.C. §103 obviousness, basic criteria must be met. The prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143.(A) Section 2131 of the MPEP recites

how "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). This same standard applies to 103 rejections as evidenced by Section 2143(A) of the MPEP, which reads: "The rationale to support a conclusion that the claim would have been obvious is that **all the claimed elements** were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions".

Claim 5 and 21 were rejected under 35 USC §103(a) as being purportedly unpatentable over Swildens and further, in view of Hingorani.

Claims 5 and 21 depend from claims 1 and 17 respectively. A prima facie case for anticipation was not established for claims 1 and 17 based on the Swildens reference. Further, Hingorani does not disclose the missing elements. Hingorani describes a method of facilitating an outbound customer interaction and does not describe network devices providing or receiving acknowledgements of received data. Therefore a prima facie case for obviousness has not been established for claims 5 and 21. Applicant respectfully requests that the rejection of these claims be withdrawn, and the claims allowed.

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Conclusion

For the reasons set forth above, the claims are now in condition for allowance. An early allowance of the claims is earnestly solicited.

Respectfully submitted,

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